SYSTEM AND METHOD FOR COHERENT OPTICAL INSPECTION

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ABSTRACT:

[0083] A system and method for coherent optical inspection are described. In one embodiment, an illuminating beam illuminates a sample, such as a semiconductor wafer, to generate a reflected beam. A reference beam then interferes with the reflected beam to generate an interference pattern at a detector, which records the interference pattern. The interference pattern may then be compared with a comparison image to determine differences between the interference pattern and the comparison image. According to another aspect, the phase difference between the reference beam and the reflected beam may be adjusted to enhance signal contrast. Another embodiment provides for using differential interference techniques to suppress a regular pattern in the sample.